

Work Order ID 161219

Monday, May 08, 2017 1:02:45 PM

161219

Page 1

Item ID: 646.4002 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: AS350 Wiper Deflector
 Start Date: 5/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 5/19/2017 Req'd Qty: 1.00 ***1*** Customer:

Reference:

Approvals: Process Plan: PA **DAS 21 9-89** Date: 2017/05/10 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr	
646.4000	C1	DAS 6 9-89

100 Document Control **MAY 11 2017**
100 DOCUMENT CONTROL
 DC Memo 0.00 **DAS 28 9-89** **MAY 15 2017**
 Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 646.4002

110 Pick Kit 0.00
110 Packaging Memo 0.00 **DAS 6 9-89** **MAY 12 2017** **DAS 27 9-89**
 Packaging

120 QC4- 100% Inspect kits for completeness 0.00
120 QC Memo 0.00 **DAS 28 9-89** **MAY 15 2017**
 Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4002 Location : FG102								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
28
9-89

MAY 15 2017

DAS
21
9-89

MAY 15 2017

DAS
21
9-89

MAY 15 2017

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Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Picklist Print

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Page 1

Work Order ID: 161219

161219

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 5/12/2017

Required Date: 5/19/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM
16.01.07 DWG REV.C DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3410 *646 3410* LH Wiper Deflector		Manufactured	No			110	Each	20.0000	1	1	DAS 6 9-89	MAY 12 2017	DAS 27 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				cck010				20					
				125083				13					
				97822				7					
646.3411 *646 3411* RH Wiper Deflector		Manufactured	No			110	Each	18.0000	1	1	DAS 6 9-89	MAY 12 2017	DAS 27 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				cck010				18					
				125083				10					
				97823				8					
NAS1149F0332P *NAS1149F0332P* Washer		Purchased	No			110	Each	2,949.000	16	16	DAS 6 9-89	MAY 12 2017	DAS 27 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				GA				275					
				m133709				275					
				ST260a				1800					
				m137412				1800					
				ST262				874					
				m137075				874					

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER :							
Misidentified ☐	☐	Past Due								

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Work Order ID: 161219

161219

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 5/12/2017

Required Date: 5/19/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

110

Each

1,465.000

6

6

MS21042L3

**

Nut

Location

Loc Qty

Loc Code

FP001

91

m135945

91

GA

464

m134360

102

M136665

362

ST303

910

m137073

11

m137166

3

m137321

896

MS27039-1-19

Purchased

No

110

Each

457.0000

2

2

MS27039-1-19

**

Screw

Location

Loc Qty

Loc Code

GA

80

m134134

80

over006

300

m137361

300

ST280

77

m137075

77

DAS
27
9-89

DAS
28
9-89

DAS
27
9-89

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause				FAULT CATEGORY							
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Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
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Picklist Print

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Work Order ID: 161219

161219

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 5/12/2017

Required Date: 5/19/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-18

Purchased

No

110

Each

1,624.000

2

2

MS27039-1-18

Screw

**

DAS
6
9-89

MAY 12 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

239

123522

39

124326

200

over006

1200

124326

1200

ST280

185

124326

185

646.3814

Manufactured

No

110

Each

4.0000

2

2

646 3814

Wiper Bracket

**

DAS
6
9-89

MAY 12 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

4

125083

4

600.1012

Purchased

No

110

Each

27.0000

1

1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
6
9-89

MAY 12 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck017

27

m136838

1

m1370073

4

m137321

8

m137371

14

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Picklist Print

Page 4

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Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 5/12/2017

Required Date: 5/19/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S53

Purchased

No

110

Each

257.0000

2

2

MS24694-S53

SCREW

DAS
6
8-89

DAS
27

MAY 12 2017

Location

Loc Qty

Loc Code

ST284

257

113359

257

2

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Shop Packet Print

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WORK ORDER NON-CONFORMANCE / UPDATE

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Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect																																																																																		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing																																																																																		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved																																																																																		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing																																																																																		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish																																																																																		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread																																																																																		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence																																																																																		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____																																																																																					
Misidentified ☐	☐ Past Due																																																																																						



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR: N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 161219

PA
2017 105 110

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐			
Misidentified ☐	Past Due ☐																																																																

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AIRCRAFT INDUSTRIES. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF AIRCRAFT INDUSTRIES. BAA DATE APPROXIMATELY 8/1/88

NOTES:
 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILED EDGES.
 INSTALL F/N 14 WITH F/N 52 & 53.
 3M XHB ADHESIVE TAPE .025" THICK X .50" WIDE
 VENDOR: MCMASTER-CARR P/N 7593A551.
 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
 VENDOR: R.S. HUGHES P/N 021200-24216.
 REUSE FASTENERS FROM F/N 1.
 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
 INSTALL SHIM IF OGA PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 42 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

QTY	4006	4005	4004	4003	4002	4001	4000	3999	3998	3997	3996	3995	3994	3993	3992	3991	3990	3989	3988	3987	3986	3985	3984	3983	3982	3981	3980	3979	3978	3977	3976	3975	3974	3973	3972	3971	3970	3969	3968	3967	3966	3965	3964	3963	3962	3961	3960	3959	3958	3957	3956	3955	3954	3953	3952	3951	3950	3949	3948	3947	3946	3945	3944	3943	3942	3941	3940	3939	3938	3937	3936	3935	3934	3933	3932	3931	3930	3929	3928	3927	3926	3925	3924	3923	3922	3921	3920	3919	3918	3917	3916	3915	3914	3913	3912	3911	3910	3909	3908	3907	3906	3905	3904	3903	3902	3901	3900	3899	3898	3897	3896	3895	3894	3893	3892	3891	3890	3889	3888	3887	3886	3885	3884	3883	3882	3881	3880	3879	3878	3877	3876	3875	3874	3873	3872	3871	3870	3869	3868	3867	3866	3865	3864	3863	3862	3861	3860	3859	3858	3857	3856	3855	3854	3853	3852	3851	3850	3849	3848	3847	3846	3845	3844	3843	3842	3841	3840	3839	3838	3837	3836	3835	3834	3833	3832	3831	3830	3829	3828	3827	3826	3825	3824	3823	3822	3821	3820	3819	3818	3817	3816	3815	3814	3813	3812	3811	3810	3809	3808	3807	3806	3805	3804	3803	3802	3801	3800	3799	3798	3797	3796	3795	3794	3793	3792	3791	3790	3789	3788	3787	3786	3785	3784	3783	3782	3781	3780	3779	3778	3777	3776	3775	3774	3773	3772	3771	3770	3769	3768	3767	3766	3765	3764	3763	3762	3761	3760	3759	3758	3757	3756	3755	3754	3753	3752	3751	3750	3749	3748	3747	3746	3745	3744	3743	3742	3741	3740	3739	3738	3737	3736	3735	3734	3733	3732	3731	3730	3729	3728	3727	3726	3725	3724	3723	3722	3721	3720	3719	3718	3717	3716	3715	3714	3713	3712	3711	3710	3709	3708	3707	3706	3705	3704	3703	3702	3701	3700	3699	3698	3697	3696	3695	3694	3693	3692	3691	3690	3689	3688	3687	3686	3685	3684	3683	3682	3681	3680	3679	3678	3677	3676	3675	3674	3673	3672	3671	3670	3669	3668	3667	3666	3665	3664	3663	3662	3661	3660	3659	3658	3657	3656	3655	3654	3653	3652	3651	3650	3649	3648	3647	3646	3645	3644	3643	3642	3641	3640	3639	3638	3637	3636	3635	3634	3633	3632	3631	3630	3629	3628	3627	3626	3625	3624	3623	3622	3621	3620	3619	3618	3617	3616	3615	3614	3613	3612	3611	3610	3609	3608	3607	3606	3605	3604	3603	3602	3601	3600	3599	3598	3597	3596	3595	3594	3593	3592	3591	3590	3589	3588	3587	3586	3585	3584	3583	3582	3581	3580	3579	3578	3577	3576	3575	3574	3573	3572	3571	3570	3569	3568	3567	3566	3565	3564	3563	3562	3561	3560	3559	3558	3557	3556	3555	3554	3553	3552	3551	3550	3549	3548	3547	3546	3545	3544	3543	3542	3541	3540	3539	3538	3537	3536	3535	3534	3533	3532	3531	3530	3529	3528	3527	3526	3525	3524	3523	3522	3521	3520	3519	3518	3517	3516	3515	3514	3513	3512	3511	3510	3509	3508	3507	3506	3505	3504	3503	3502	3501	3500	3499	3498	3497	3496	3495	3494	3493	3492	3491	3490	3489	3488	3487	3486	3485	3484	3483	3482	3481	3480	3479	3478	3477	3476	3475	3474	3473	3472	3471	3470	3469	3468	3467	3466	3465	3464	3463	3462	3461	3460	3459	3458	3457	3456	3455	3454	3453	3452	3451	3450	3449	3448	3447	3446	3445	3444	3443	3442	3441	3440	3439	3438	3437	3436	3435	3434	3433	3432	3431	3430	3429	3428	3427	3426	3425	3424	3423	3422	3421	3420	3419	3418	3417	3416	3415	3414	3413	3412	3411	3410	3409	3408	3407	3406	3405	3404	3403	3402	3401	3400	3399	3398	3397	3396	3395	3394	3393	3392	3391	3390	3389	3388	3387	3386	3385	3384	3383	3382	3381	3380	3379	3378	3377	3376	3375	3374	3373	3372	3371	3370	3369	3368	3367	3366	3365	3364	3363	3362	3361	3360	3359	3358	3357	3356	3355	3354	3353	3352	3351	3350	3349	3348	3347	3346	3345	3344	3343	3342	3341	3340	3339	3338	3337	3336	3335	3334	3333	3332	3331	3330	3329	3328	3327	3326	3325	3324	3323	3322	3321	3320	3319	3318	3317	3316	3315	3314	3313	3312	3311	3310	3309	3308	3307	3306	3305	3304	3303	3302	3301	3300	3299	3298	3297	3296	3295	3294	3293	3292	3291	3290	3289	3288	3287	3286	3285	3284	3283	3282	3281	3280	3279	3278	3277	3276	3275	3274	3273	3272	3271	3270	3269	3268	3267	3266	3265	3264	3263	3262	3261	3260	3259	3258	3257	3256	3255	3254	3253	3252	3251	3250	3249	3248	3247	3246	3245	3244	3243	3242	3241	3240	3239	3238	3237	3236	3235	3234	3233	3232	3231	3230	3229	3228	3227	3226	3225	3224	3223	3222	3221	3220	3219	3218	3217	3216	3215	3214	3213	3212	3211	3210	3209	3208	3207	3206	3205	3204	3203	3202	3201	3200	3199	3198	3197	3196	3195	3194	3193	3192	3191	3190	3189	3188	3187	3186	3185	3184	3183	3182	3181	3180	3179	3178	3177	3176	3175	3174	3173	3172	3171	3170	3169	3168	3167	3166	3165	3164	3163	3162	3161	3160	3159	3158	3157	3156	3155	3154	3153	3152	3151	3150	3149	3148	3147	3146	3145	3144	3143	3142	3141	3140	3139	3138	3137	3136	3135	3134	3133	3132	3131	3130	3129	3128	3127	3126	3125	3124	3123	3122	3121	3120	3119	3118	3117	3116	3115	3114	3113	3112	3111	3110	3109	3108	3107	3106	3105	3104	3103	3102	3101	3100	3099	3098	3097	3096	3095	3094	3093	3092	3091	3090	3089	3088	3087	3086	3085	3084	3083	3082	3081	3080	3079	3078	3077	3076	3075	3074	3073	3072	3071	3070	3069	3068	3067	3066	3065	3064	3063	3062	3061	3060	3059	3058	3057	3056	3055	3054	3053	3052	3051	3050	3049	3048	3047	3046	3045	3044	3043	3042	3041	3040	3039	3038	3037	3036	3035	3034	3033	3032	3031	3030	3029	3028	3027	3026	3025	3024	3023	3022	3021	3020	3019	3018	3017	3016	3015	3014	3013	3012	3011	3010	3009	3008	3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DQA: _____ Date: _____



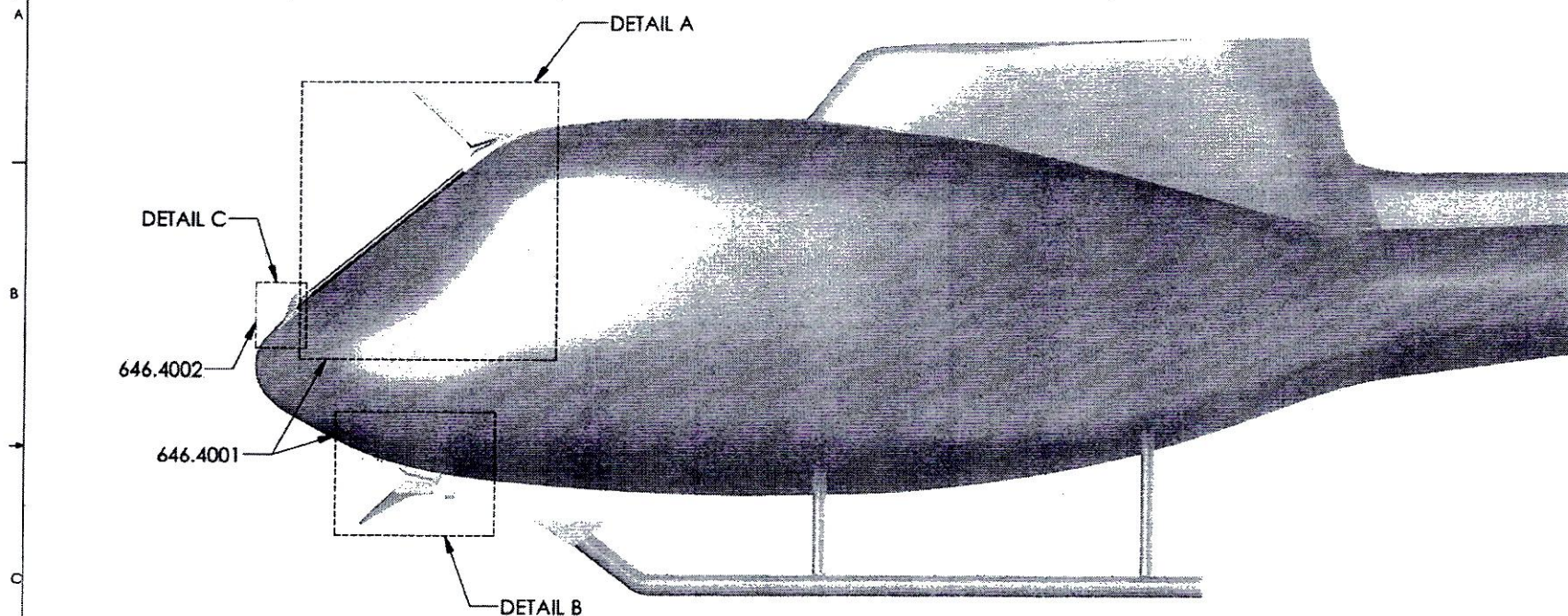
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :	
Misidentified ☐	Past Due ☐																																																														

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ORIGINAL DATE (MO-DA-YR) 08-27-08		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWN BY S. HUFF	CHECKED P. BRAVO		
DRAWING APPROVAL P. BRAVO 08/27/08		AS350 CABLE CUTTERS KIT	
CONTRACT NO.		SIZE B	CAGB CODE 07M26 DWG. NO. 646.4000 SCALE NONE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 2 PLACE DECIMALS ±.010 ANGLES ± .5°		REV C	SHEET 2 OF 5

DQA: _____ Date: _____



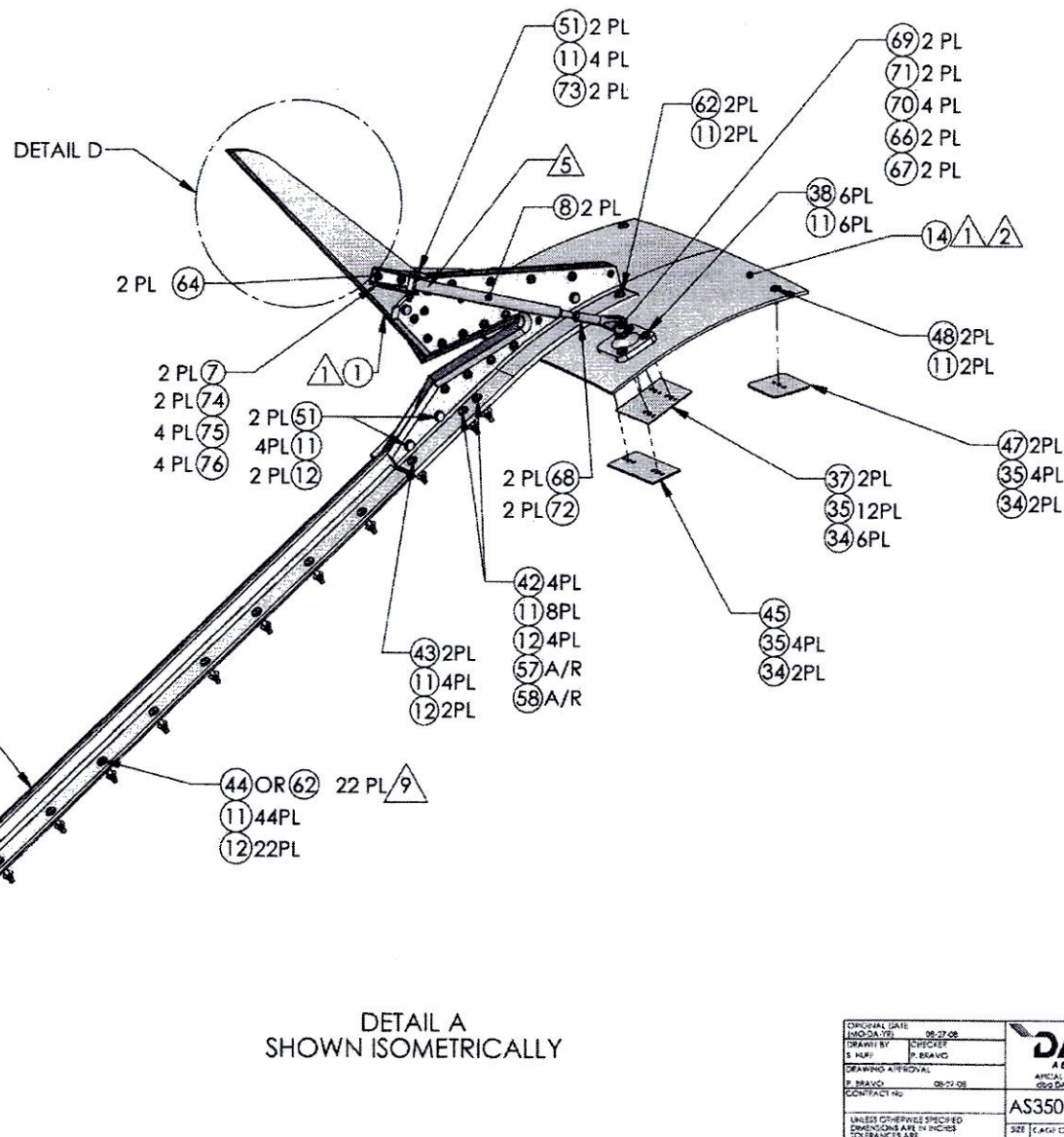
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION



DETAIL A
SHOWN ISOMETRICALLY

ORIGINAL DATE INVO-DA-YR: 06-27-08 DRAWN BY: CHECKER 134 HUR DRAWING APPROVAL P. BRAY 08-27-08 CONTRACT NO.	 3300 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5000 AEROSPACE AEROSPACE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED 2 PLACE DECIMALS 0.00 3 PLACE DECIMALS 0.000 ANGLES ± .5	
SIZE: 1/8" X 11" DWG NO. 646.4000 SCALE: NONE SHEET 3 OF 5	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

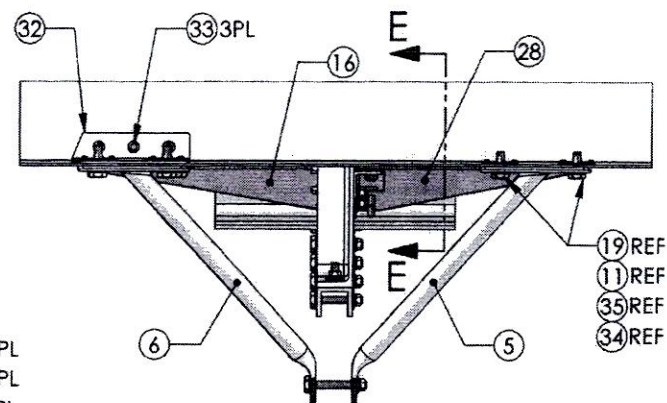
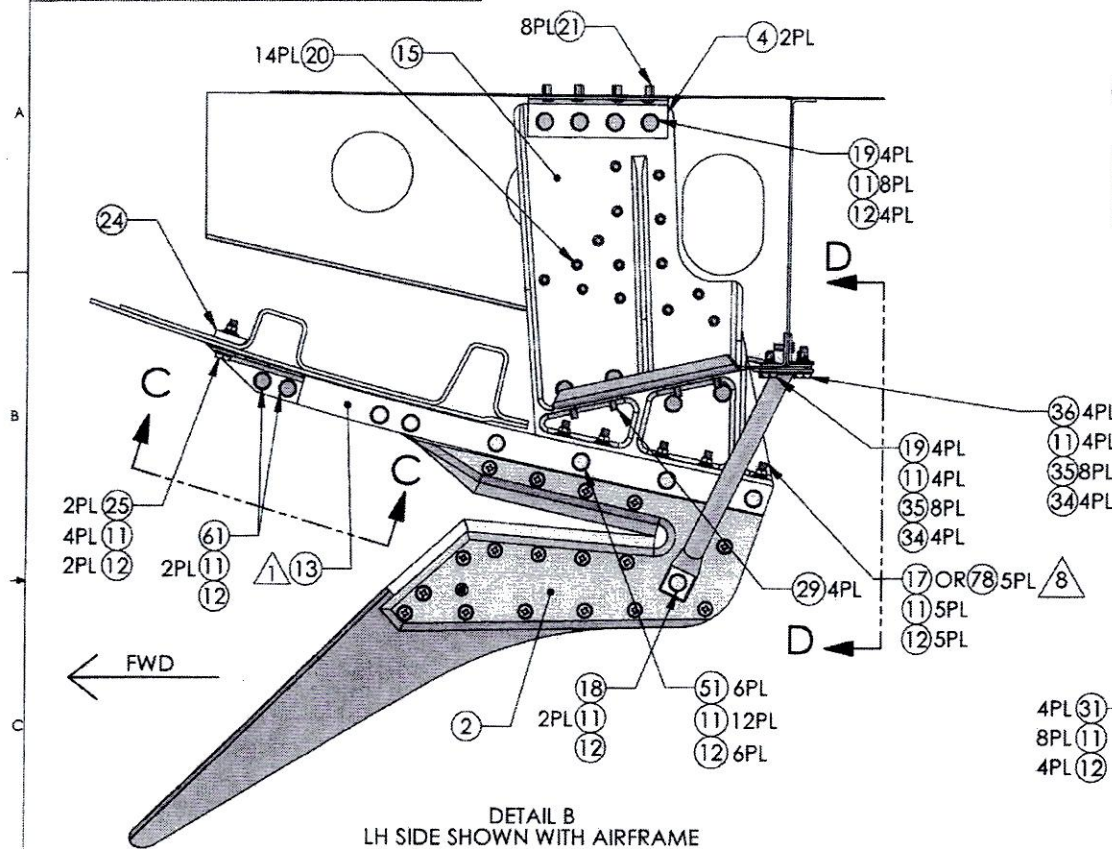
QA Closed: _____ Date: _____

Work Order update only ☐

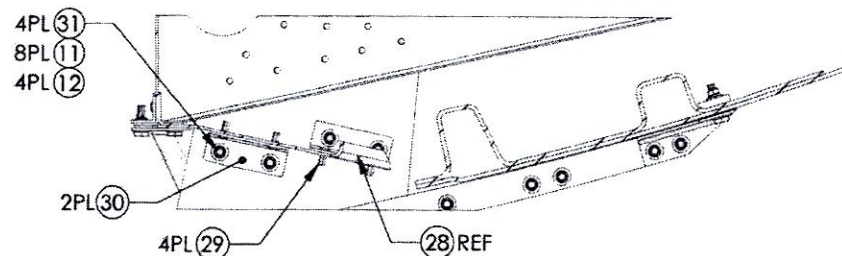
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER : _____							
Misidentified ☐	☐	Past Due								

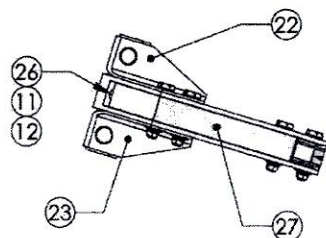
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SECTION D-D
CUTTER HIDDEN FOR CLARITY



SECTION E-E



SECTION C-C

OFFICIAL DATE 100-DAY/181	06-27-08	 DART AEROSPACE AERIAL INSULATIONS INC. 200 DART AEROSPACE	3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300
DRAWN BY	CHIEFER P. BLAND		
DRAWING APPROVAL	P. BLAND		
DATE	06-27-08		
CONTRACT NO.			
AS350 CABLE CANTERS KIT			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.05 3 PLACE DECIMALS ±0.01 ANGLES ± 5°			
SIZE	CAGE CODE	QING. NO.	REV.
	07426	646.400	
SCALE NONE		SHEET 4 OF 5	

DQA: _____ Date: _____



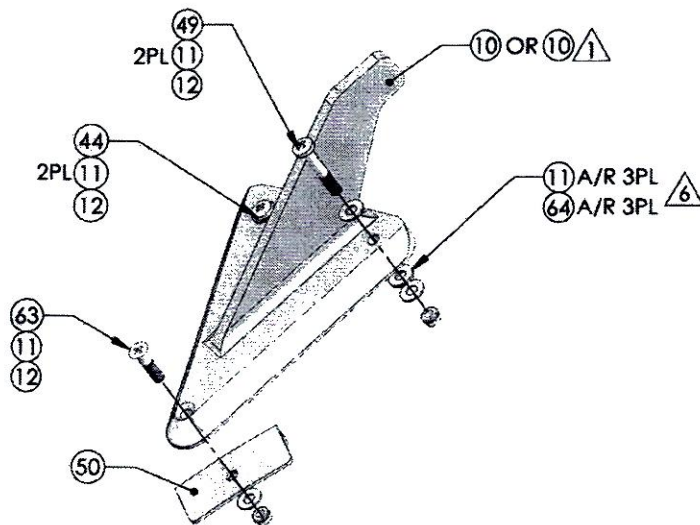
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE 06/27/08		DRAWN BY S. HUFF		CHECKED P. BRAVO	
DRAWING APPROVAL P. BRAVO 06/27/08		CONTRACT NO.			
DART 3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 17601-724-5300 APICAL INDUSTRIES, INC. DBA DART AEROSPACE AS350 CABLE CUTTERS KIT					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°					
SIX B	CAGE CODE 07M26	DWG. NO. 646.4000	REV. C		
SCALE NONE			SHEET 5 OF 5		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AIRCRAFT INDUSTRIES. NO PART THEREOF MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF AIRCRAFT INDUSTRIES.

- NOTES:
- AFTER INSTALLATION, APPLY F/N S4 A/R TO FILL GAPS AND FILLET EDGES.
 - INSTALL F/N 14 WITH F/N 52 & 53.
 - 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75936A651.
 - 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
 - REUSE FASTENERS FROM F/N 1.
 - USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
 - AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
 - INSTALL SHIM IF OEMA PROVISIONS ARE INSTALLED ON AIRCRAFT, REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
 - NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

QTY	REV	DESCRIPTION	PART #	FIND #	QTY	REV	DESCRIPTION	PART #	FIND #	QTY	REV	DESCRIPTION	PART #	FIND #
1	1	SCREW	601.2875	5	5	5	SCREW	601.2875	5	5	5	SCREW	601.2875	5
1	1	SHIM	646.9410	1	1	1	SHIM	646.9410	1	1	1	SHIM	646.9410	1
4	4	WASHER	601.2764	4	4	4	WASHER	601.2764	4	4	4	WASHER	601.2764	4
2	2	LOCKNUT	601.2973	2	2	2	LOCKNUT	601.2973	2	2	2	LOCKNUT	601.2973	2
2	2	SCREW	601.2988	2	2	2	SCREW	601.2988	2	2	2	SCREW	601.2988	2
2	2	LOCKNUT	601.2943	2	2	2	LOCKNUT	601.2943	2	2	2	LOCKNUT	601.2943	2
2	2	NUT	601.3128	2	2	2	NUT	601.3128	2	2	2	NUT	601.3128	2
2	2	LOCKNUT	601.3209	2	2	2	LOCKNUT	601.3209	2	2	2	LOCKNUT	601.3209	2
4	4	WASHER	601.2636	4	4	4	WASHER	601.2636	4	4	4	WASHER	601.2636	4
2	2	BOLT	601.2669	2	2	2	BOLT	601.2669	2	2	2	BOLT	601.2669	2
2	2	CLEVIS	601.3119	2	2	2	CLEVIS	601.3119	2	2	2	CLEVIS	601.3119	2
2	2	EYE BOLT	601.3121	2	2	2	EYE BOLT	601.3121	2	2	2	EYE BOLT	601.3121	2
2	2	EYE BRACKET ASSY	650.9201	2	2	2	EYE BRACKET ASSY	650.9201	2	2	2	EYE BRACKET ASSY	650.9201	2
REF	REF	GPS MOUNT KIT	647.5701	REF	REF	REF	GPS MOUNT KIT	647.5701	REF	REF	REF	GPS MOUNT KIT	647.5701	REF
2	2	WASHER	601.3151	2	2	2	WASHER	601.3151	2	2	2	WASHER	601.3151	2
2	2	SCREW	601.2637	2	2	2	SCREW	601.2637	2	2	2	SCREW	601.2637	2
2	2	BOLT	601.2763	2	2	2	BOLT	601.2763	2	2	2	BOLT	601.2763	2
1	1	SHIM	646.3913	1	1	1	SHIM	646.3913	1	1	1	SHIM	646.3913	1
4	4	SHIM	646.3912	4	4	4	SHIM	646.3912	4	4	4	SHIM	646.3912	4
1	1	SHIM	646.3911	1	1	1	SHIM	646.3911	1	1	1	SHIM	646.3911	1
4	4	SHIM	646.3910	4	4	4	SHIM	646.3910	4	4	4	SHIM	646.3910	4
5	5	PRIMER	600.1013	5	5	5	PRIMER	600.1013	5	5	5	PRIMER	600.1013	5
8 FT	8 FT	VHB TAPE	600.0129	8 FT	8 FT	8 FT	VHB TAPE	600.0129	8 FT	8 FT	8 FT	VHB TAPE	600.0129	8 FT
1	1	SEALANT	600.1012	1	1	1	SEALANT	600.1012	1	1	1	SEALANT	600.1012	1
1	1	MACOMBOND 4998 PART B	600.0991	1	1	1	MACOMBOND 4998 PART B	600.0991	1	1	1	MACOMBOND 4998 PART B	600.0991	1
1	1	MACOMBOND 4998 PART A	600.0990	1	1	1	MACOMBOND 4998 PART A	600.0990	1	1	1	MACOMBOND 4998 PART A	600.0990	1
10	10	BOLT	601.2826	10	10	10	BOLT	601.2826	10	10	10	BOLT	601.2826	10
2	2	WIPER BRACKET	646.3814	2	2	2	WIPER BRACKET	646.3814	2	2	2	WIPER BRACKET	646.3814	2
49	49	SCREW	601.2910	49	49	49	SCREW	601.2910	49	49	49	SCREW	601.2910	49
2	2	SCREW	601.1365	2	2	2	SCREW	601.1365	2	2	2	SCREW	601.1365	2
2	2	DOUBLER	646.3719	2	2	2	DOUBLER	646.3719	2	2	2	DOUBLER	646.3719	2
2	2	CUSTOM WASHER	646.3718	2	2	2	CUSTOM WASHER	646.3718	2	2	2	CUSTOM WASHER	646.3718	2
1	1	DOUBLER	646.3717	1	1	1	DOUBLER	646.3717	1	1	1	DOUBLER	646.3717	1
2	2	SCREW	601.1952	2	2	2	SCREW	601.1952	2	2	2	SCREW	601.1952	2
4	4	SCREW	601.1954	4	4	4	SCREW	601.1954	4	4	4	SCREW	601.1954	4

UNINCORPORATED ECN(S)

05304

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Page 1

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Department of Transport

Supplemental Type Certificate

This approval is issued to:

Apical Industries Inc.
2608 Temple Heights Drive
Oceanside, California
United States of America 92056-3512

Number: SH09-10

Issue No.: 1

Approval Date: March 18, 2009

Issue Date: March 18, 2009

Responsible Office:

Pacific

Aircraft/Engine Type or Model:

EUROCOPTER FRANCE AS 350 B2, AS 350 BA, AS 350B,
AS 350B1, AS 350B3, AS 350D, AS 350D1

Canadian Type Certificate or Equivalent:

H-83

Description of Type Design Change:

Installation of a Cable Cutter Kit in accordance with FAA STC
SR02180LA

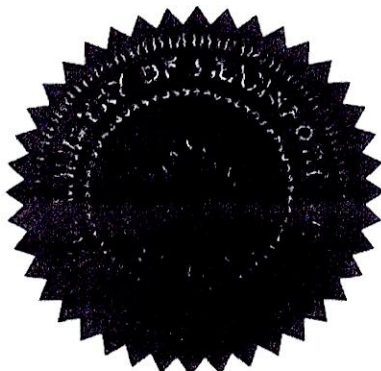
**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of a Cable Cutter Kit in accordance with FAA approved Apical Master Document list,
MD350-61, Revision A, dated November 25, 2008, or later FAA approved revision.

This approval requires the inspections and overhaul schedules to be performed as mandated by
Apical Industries, Inc.'s Instructions for Continued Airworthiness, ICA350-61, Revision N/C, dated
November 29, 2008, or later FAA accepted revision.

A copy of this Certificate must be included in the permanent records of the modified aircraft.

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein.
Prior to incorporating this modification, the installer shall establish that the interrelationship between this
change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the
modified product.

Michael Chan
For Minister of Transport